



Fig. 1. Adult male *Pseudacris feriarum* with left-side anophthalmia from York County, Virginia.

Smith, D. D., & R. Powell. 1983. Life history: *Acris crepitans blanchardi* (Blanchard's Cricket Frog) anomalies. *Herpetological Review* 14: 118-119.

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BILATERAL ECTROMELIA IN A NORTHERN CRICKET FROG (*ACRIS CREPITANS CREPITANS*) METAMORPH FROM VIRGINIA—Most malformations in frogs have been reported for metamorphs or juveniles (e.g., Ouellet et al., 1997; Meteyer, 2000; Meteyer et al., 2000). Deformities in tadpoles are occasionally reported based on experimental work or from contaminated environments (Rowe et al., 1998). In the genus *Acris*, polydactyly in *A. gryllus* was reported from Florida by Christman (1970) and malformations consisting of a missing eye and subcutaneous bloating derived from a herniated small intestine were described for *A. c. blanchardi* in Missouri by Smith & Powell (1983). Gray (2001) noted

that 39 of 9,987 recently metamorphosed *A. c. blanchardi* froglets from Illinois had missing limbs and digits and deformed or extra limbs, digits, or mouthparts. The North American Reporting Center for Amphibian Malformations website (<http://frogweb.nbio.gov/narcam/>) reports four species of ranids and an American toad (*Bufo americanus*) with multiple legs but none with ectromelia (missing limbs). No reports concern tadpoles. Here we report the first documented observation of ectromelia in a metamorphic *A. crepitans crepitans*.

On 29 July 2003, we captured a 30 mm total length *Acris c. crepitans* tadpole in a tire rut pool in a clearcut on Fort Lee (U.S. Army), Prince George County, Virginia (UTM 4126859 N, 18s 293184 E, NAD 83). Both of the anterior limbs were fully formed with complete development of both hands and digits. Both rear limbs were absent, with only small, fleshy stumps at the point of emergence from the body (Fig. 1). There was no evidence of predation or injury. The dark areas on the stumps are melanophores; there is no bone tissue exposed. We interpret this observation as an instance of congenital bilateral ectromelia. Twenty other *A. crepitans* tadpoles with rear legs only were also captured at this site, as were two metamorphs with



Fig. 1. *Acris c. crepitans* tadpole from Virginia with bilateral ectromelia.

all four limbs and a tail. None of these larvae showed signs of malformations. No obvious environmental or military training factor contributed to this malformation. All tadpoles and metamorphic frogs that are captured should be examined closely for abnormalities because they may represent unique cases or indications of more severe problems.

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- MORTALITY OF LARVAL SPOTTED SALAMANDERS (*AMBYSTOMA MACULATUM*) IN A CENTRAL VIRGINIA ROAD RUT PUDDLE—
Several species of frogs and salamanders in the mid-Atlantic region use vernal pools for egg deposition and larval development (Mitchell, 2000). Road rut puddles of various sizes that often act like vernal pools are used extensively by amphibians such as Spring Peepers (*Pseudacris crucifer*), Wood Frogs (*Rana sylvatica*), Green Frogs (*Rana clamitans*), American Toads (*Bufo americanus*), Fowler's Toads (*B. fowleri*), Red-spotted Newts (*Notophthalmus viridescens*), Marbled Salamanders (*Ambystoma opacum*) and Spotted Salamanders (*A. maculatum*) (pers. obs.). Such ephemeral aquatic environments are susceptible to early drying that could result in complete mortality of the entire cohort of offspring. Drying pools are also attractive to predators such as crows, herons, and raccoons (pers. obs.). Mortality from disease organisms in such environments has not been previously reported. The biology and effects of various diseases such as ranaviruses (Family: Iridoviridae), ichthyophoniasis and chytridiomycosis have been studied in places other than the mid-Atlantic (Docherty et al., 2003). In Virginia, diseases have caused mortality in Southern Leopard Frogs (*Rana sphenoccephala utricularia*) in Virginia Beach and larval Wood Frogs (*R. sylvatica*) in Augusta County (D. E. Green, pers. comm.). Multiple die-offs of Spotted Salamanders in the southern Appalachians have been attributed to ranaviral epizootics (Converse & Green, 2005). In this paper, I describe a mortality event for *A. maculatum* larvae in a central Virginia road rut puddle and note possible disease agents that may have caused this die-off.
- On 3 June 1998, I observed large numbers of dead *A. maculatum* larvae in two shallow road rut puddles on a plant nursery road 1.6 km W Midlothian, Chesterfield County, Virginia. One pool measured 5 m long x 1m wide x 4 cm deep, and the other measured 7.5 m long x 1.3 m wide x 5 cm deep. Each pool had a clay substrate with little organic matter or algae. There was no emergent vegetation and the water was clear. Most of the margins of each pool were bordered by grass. Mixed hardwoods and pine on both sides of the road afforded shading in the morning and late afternoon. The afternoon temperature was about 32° C and there had been no rain for at least two days. I was unable to take water temperature but it was warm to the touch. The number of dead *A. maculatum* larvae was not counted, although there were about 2-3 scores of them. Not all of